

## WHAT IS CLAIMED IS:

1. A probe comprising:  
  
a plurality of transducers; and  
  
a plurality of pulsers within said probe responsive to one or more transmit timing signals received from an external system to transmit pulses to said plurality of transducers.
2. A probe in accordance with Claim 1 wherein said plurality of pulsers are responsive to a low voltage analog transmit timing signal.
3. A probe in accordance with Claim 1 further comprising a plurality of high voltage multiplexers configured to route said pluses from said pulsers to said plurality of transducers.
4. A probe in accordance with Claim 1 further comprising a low voltage multiplexer configured to couple said transmit timing signals received from said external system to said pulsers.
5. A probe in accordance with Claim 4 wherein each said transducer is responsive to a dedicated said pulser.
6. A probe in accordance with Claim 1 wherein said pulsers comprise pulsers selected from the set consisting of bipolar pulsers, unipolar pulsars, and combinations thereof, and further comprising conversion circuitry configured to convert said transmit timing signals to low voltage signals to operate said pulsers.
7. A probe in accordance with Claim 1 further comprising a digital to analog converter (DAC) in said handle, said DAC responsive to a digital transmit timing signal received from the external system to convert the digital transmit timing signal to an analog timing signal, and said pulsers are responsive to said analog timing signal.

8. A probe in accordance with Claim 1 wherein said transducers are ultrasound transducers and the pulsers are responsive to one or more transmit timing signals received from an imaging system.

9. A probe comprising:

a plurality of transducers;

a transmit timing circuit within said probe responsive to one or more control signals received from an external system to generate timing signals;

a plurality of pulsers within said probe responsive to said timing signals to generate high voltage pulses; and

a plurality of transducers within said probe responsive to said high voltage pulses.

10. A probe in accordance with Claim 9 further comprising a multiplexer configured to selectively couple said high voltage pulses to said transducers.

11. A probe in accordance with Claim 9 further comprising a low voltage multiplexer configured to selectively couple said timing signals to said pulsers.

12. A probe in accordance with Claim 9 wherein said transducers are ultrasound transducers and said external system is an imaging system.

13. A probe comprising:

a plurality of transducers;

an array of pulsers, each transducer responsive to pulses from a dedicated said pulser;

a low voltage multiplexer responsive to a control signal from an external system and configured to distribute signals to said array of pulsers;

wherein said pulsers are responsive to said signals from said multiplexer to generate pulses to said transducers.

14. A probe in accordance with Claim 13 wherein said transducers are ultrasonic transducers and the external system is an imaging system.

15. A probe comprising:

a plurality of transducers;

an array of pulsers, each transducer responsive to pulses from a dedicated said pulser;

an array of transmit timing circuits within said probe responsive to one or more control signals received from an external system to generate timing signals, wherein said timing circuits include a memory;

wherein said pulsers are responsive to said timing signals from said array of timing circuits to generate pulses to said transducers.

16. A probe in accordance with Claim 15 wherein a waveform description is stored in said memory.

17. A probe in accordance with Claim 15 wherein the waveform description is stored parametrically.

18. A probe in accordance with Claim 15 wherein said transducers are ultrasonic transducers and the external system is an imaging system.

19. A probe comprising:

a plurality of transducers;

a plurality of pulsers within said probe responsive to one or more transmit timing signals to transmit pulses to said plurality of transducers;

a transmit timing circuit within said probe configured to generate the one or more transmit timing signals; and

a pulse timing and control circuit configured to control the transmit timing circuit.

20. A probe in accordance with Claim 19 configured to send control signals from the pulse timing and control circuit to an external system.

21. A method for operating a transducer probe comprising:

generating one or more signals in an external system;

controlling a plurality of pulsers in a probe utilizing the one or more signals from the external system; and

operating a plurality of transducers utilizing signals from said plurality of pulsers.

22. A method in accordance with Claim 21 wherein said signals from the external system comprise timing signals.

23. A method in accordance with Claim 22 wherein said operating a plurality of transducers utilizing signals from said plurality of pulsers comprises operating each said transducer utilizing a signal from a dedicated said pulser.

24. A method in accordance with Claim 21 further comprising generating timing signals in a handle of the probe utilizing said one or more signals from the external system.

25. A method in accordance with Claim 21 wherein the external system is an imaging system and said transducers are ultrasound transducers.

26. A method for operating a transducer probe comprising:

generating one or more signals in the transducer probe;

controlling a plurality of pulsers in the probe utilizing the one or more signals generated in the transducer probe; and

operating a plurality of transducers utilizing signals from said plurality of pulsers.

27. A method in accordance with Claim 26 further comprising sending control signals from the probe to an external system.